

## ZRD1/CCD1 Response Form

House No(s) 200-208	Street Name Amstero	tam Avenu	<b>a</b>		
Borough Manhattan	Block 1158	Lot 133	BIN 1030358		Job No.
<del></del>					
DETERMINATION (To be comp	<del></del>	la nebatane			<u> </u>
Request has been:	Approved		Denied	X	Approved with conditions
Follow-up appointment required?	— Yes		No		
Primary Zoning Resolution or Code S					
Other secondary Zoning Resolution of	r Code Section(s):				
Comments:					
CONTROL# 44647					
APPROVED WITH CONDITIO	NS:				
Applicants request to utilise a leach				cade	es to provide for supply and
i) Proposed mechanical design	shall comply with	2014 MC.			
ii)The existing light and air eas	ement shall be mo	odified to cl	early authorize the	e pro	posed use.
ii)The existing light and air eas iii)The proposed easement sha			•	·	
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iii)The proposed easement sha	all be text of the ap	oproved by /inlet terminal let termina	the department properties of supply a tion.	rior to	execution and registration.  Exhaust be measured to the
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iii)The proposed easement sha iv)The measurement for distant easement boundary opposite to  ===================================	print): MARTIN RE	coproved by  Unlet terminal  Committee termina	the department properties of supply a tion.  ===================================	rior to	execution and registration.  exhaust be measured to the exhaust deviation.  exhaust deviation and registration.

RODNEY GITTENS, R.A.
Deputy Borough Commissioner

Note: Determination will expire if construction document approval is not obtained within 12 months of Issuance.

6/09



## CCD1: Construction Code Determination Form

44647.

Onent and affix BIS pb number label here

Must be typewritten

<del></del>		<del></del>
1 Location Information Required for all re	equests on filed applications.	M. ABBENOUR.
House Na(s) 200-208	Street Name AMSTE	RDAM AVENUE
Borough Manhattan	Block 1158 Lot 133	BIN 1030358 CB No 107
2 Applicant Information Required for all	requests on filed applications	
Last Name MCHUGH	First Name CHRI	STOPHER Middle Initial
Business Name AKF ENGINEERIN	NG	Business Telephone (212) 354-5656
Business Address ONE LIBERTY PL	AZA, 165 BROADWAY 22ND F	FLOOR Business Fax (212) 354-5668
City NEW YORK	State NY Zip 10006	Mobile Telephone ( ) -
E-Mail CMCHUGH@AKF	GROUP.COM	License Number 073130
License Type PE RA.	RLA	DOB PENS ID # (if available)
3 Attendee Information Required if differen	ent from Applicant in section 2 or no Ap	pplicant
	Representative Attorney	Other.
Last Name JACKIER	First Name PHILL	
Business Name GILLMAN CONSU		Business Telephone (212) 349-9304
Business Address 40 WORTH ST SU		Business Fax (212) 349-9346
City NEW YORK	State NY Zip 10013	<del> </del>
E-Mail PHILLIP@GILLMA	ANIING, COM License Re	gistration # (if P E /R A /Attorney) 022203
		DOB PENS ID # (if available) A10679
4 Nature of Request Required for all reque		
Note Do not use this form for Zoning Resolu		
	Borough Commissioner's Office	☐ Technical Affairs
Job associated with this request?	Yes (provide job#/doc#/examiner na	·
Job Number: Has this request been previously denied?	Document Number	
Indicate total number of pages submitted with	•	(attachment may not be larger than 11" x 17")
· -	Code 2008 Code	1968 Code Prior to 1968 Code
• • • •		
		ation; MC 404 Enclosed parking garage; harge opening termionation requirements
Indicate all Buildings Department officials		
Borough Commissioner	Code & Zoning Specialist	General Counsel's Office
Deputy Borough Commissioner	Chief Plan Examiner	Olher:
ADMINISTRATIVE USE ONLY		
Reference #	Appointment date	Appointment time:
Appointment Scheduled With:	4. At 48.4	
Comments:	7.1	
Reviewed By:	1	Date 96-16 Time:
		10/4/16



_	PAGE A
5	Description of Request (additional space is available on page 3)
	This is a request for:
	☐ Interpretation or clarification
	Variation of Building Code or Rules per § 28-103 3 (please state in detail the practical difficulty that is specific to this project, and provide the analysis as to equally safe alternative, as per NYC Charter Section 645(b)(2))
l	☐ Variation of Multiple Dwelling Law (MDL) § 277 16 for Article 7B Buildings (please state in detail the practical difficulty that is specific to this project and provide the analysis as to equally safe alternative, as per NYC Charter Section 645(b)(2))
j	Note: Variations of any other MDL provisions must be filed with the Board of Standards and Appeals (BSA) per MDL § 310.
	Please itemize all attachments, including plans/sketches, submitted with this form. If this is based on a plan examiner objection, type in the applications of the submitted with this form.

cable objection text exactly as it appears on the objection sheet.

Pre-determination is respectfully requested to direct intake and exhaust air across a building tax lot line when there exists a "light and air" easement (see attached).

This proposed new building will be a residential [R-2] structure with accessory amenities at the lower floors. The building will be located at the northwest corner of West 69th Street and Amsterdam Avenue. The site is subject to a number of constraints including 'tight and air easements' on the south and west lot lines, an existing adjacent building on the parcel to the north, and building walls proposed at the lot lines on the East, South and West facades, Additionally, due to the site fronting a single street, all utilities and POE's must enter the building from Amsterdam Avenue

Accessory amenities are proposed in the below grade floors including an enclosed parking facility, a swimming pool and a fitness center, all requiring fresh air intake and exhaust air. It is also proposed to locate the emergency generator within these lower levels

The Amsterdam Avenue frontage is not a viable location for the fresh air intake and exhaust due to the utility POE rooms below grade and the building entrance at street level, leaving only the south and west façades as viable alternatives. It is therefore proposed to utilize the existing "light and air" easement at the south and west facades to exhaust air for the uses at the lower floors. Intake ducts will contain fire / smoke dampers as per NYC Code requirements

The following 2014 Mechanical Code sections apply to the intake air and exhaust air for the proposed uses at the lower floors [see attached]

#### Exhaust

- 1 Parking garage: MC 501.2.1 item 1 10 feet from property lines, 10 feet above grade
- 2. Environmental exhausts (spill air from HVAC systems, ventilation exhaust from generator): MC 501.2.1 - item 3-3 feet from property lines and 10 feet from intakes.
- 3 Exhaust can not be directed onto public walkways MC 501 2.1.1.
- 4. Generator products of combustion exhaust (flue) MC 811.2 exhaust is to be directed to not jeopardize health and safety of people.

#### Ventilation air intake

1 MC 401.4 – intakes located 10 feet from property lines

The 30 foot wide "light and air easement" [see attached] on the south and west facades create the parameters that will provide the required separation between buildings and exhaust meeting the intent and provisions of the Code

Note: Buildings Department Determination will be issued on the CCD1 Response Form

ADMINISTRATIVE	USE ONLY /			
Reviewed By:	Land Copylin	the counts dead	Date: 66-16	Time:
	4		10/4/16	12/14



6 Description of Request (use this section if additional space is required for description)



Note: Buildings Department Determination will be Issued on the CCD1 Response Form

I hereby state that all of the above information is correct and complete to the best of my knowledge. Falsification of any statement is a misdemeanor and is punishable by a fine or imprisonment, or both. It is unlawful to give to a City employee, or for a City employee to accept, any benefit, monetary of otherwise, alther as a gratuity for properly performing the job or in exchange for special consideration. Violation is punishable by imprisonment or fine, or both

Name (please PE /RA. See The Property of Sun and data over seet – not required for Allein's Yolk varies applications)

ADMINISTRATIVE USE ONLY

Raviewed By:

10/4/16

12/14

## NYC DEPARTMENT OF FINANCE OFFICE OF THE CITY REGISTER

This page is part of the instrument. The City Register will rely on the information provided by you on this page for purposes of indexing this instrument. The information on this page will control for indexing purposes in the event of any conflict with the rest of the document.



will control for indexing purposes in the event of any conflict with the rest of the document. 2014123001316001003EA56D RECORDING AND ENDORSEMENT COVER PAGE PAGE 1 OF 10 Document ID: 2014123001316001 Document Date: 12-19-2014 Preparation Date: 02-02-2015 Document Type: EASEMENT Document Page Count: 8 PRESENTER: RETURN TO: TITLEVEST AGENCY TITLEVEST AGENCY 44 WALL STREET/ DR-NY-440023 44 WALL STREET/ DR-NY-440023 **10TH FLOOR** 10TH FLOOR NEW YORK, NY 10005 NEW YORK, NY 10005 212-757-5800 212-757-5800 RECORDINGS@TITLEVEST.COM RECORDINGS@TITLEVEST.COM PROPERTY DATA Borough Block Lot Address MANHATTAN 1158 1405 Entire Lot 1405 170 WEST END AVENUE Property Type: SINGLE RESIDENTIAL COOP UNIT Block Lot Unit Address Borough MANHATTAN 1158 1401 Entire Lot 1401 170 WEST END AVENUE Property Type: COMMERCIAL REAL ESTATE Additional Properties on Continuation Page CROSS REFERENCE DATA CRFN DocumentID Year Reel Page File Number PARTIES GRANTOR/SELLER: GRANTEE/BUYER: **BOARD OF MANAGERS OF THE 170 WEST END** ACP AMSTERDAM III, LLC AVENUE CONDO 460 PARK AVENUE, 11TH FLOOR, C/O AMERICAN CONTINENTAL PROPERTIES LLC 170 WEST END AVENUE NEW YORK, NY 10023 NEW YORK, NY 10022 FEES AND TAXES Filing Fee: Mortgage: Mortgage Amount: 250.00 0.00 NYC Real Property Transfer Tax: Taxable Mortgage Amount: 0.00 Exemption: 0.00 TAXES: County (Basic): NYS Real Estate Transfer Tax: 0.00 City (Additional): \$ 0.00 0.00 Spec (Additional): \$ 0.00 RECORDED OR FILED IN THE OFFICE TASF: 0.00 OF THE CITY REGISTER OF THE MTA: \$ 0.00 CITY OF NEW YORK NYCTA: \$ 0.00 Recorded Filed 02-06-2015 10:22 Additional MRT: \$ 0.00 City Register File No.(CRFN): TOTAL: \$ 0.00 2015000041853 Recording Fee: \$ 89.00 Affidavit Fce: 0.00

City Register Official Signature

NYC DEPARTMENT OF FINANCE OFFICE OF THE CITY REGISTER



2014123001316001003CA7ED

RECORDING AND ENDORSEMENT COVER PAGE (CONTINUATION) **PAGE 2 OF 10** 

Document 1D: 2014123001316001

Document Date: 12-19-2014

Preparation Date: 01-14-2015

Document Type: EASEMENT

PROPERTY DATA

Borough

Unit

Address

MANHATTAN 1158 1402 Entire Lot

**Block Lot** 

1402 170 WEST END AVENUE

Property Type: COMMERCIAL REAL ESTATE

Borough Block Lot Unit Address

MANHATTAN 1158 1403 Entire Lot

1403 170 WEST END AVENUE

Property Type: COMMERCIAL REAL ESTATE

**Bo**rough Block Lot Unit

MANHATTAN 1158 1404 Entire Lot 1404 170 WEST END AVENUE

Property Type: COMMERCIAL REAL ESTATE



RewrdandReturn! Baker Hostetler 45 Rockefeller Plaza NewYork, DY 10111

#### LIGHT AND AIR EASEMENT AGREEMENT

EASEMENT AGREEMENT made this  $\underline{jg}^{+h}$  day of December, 2014, between the Board of Managers of The 170 West End Avenue Condominium (the "Condominium"), on behalf of all Condominium unit owners (the "Unit Owners"), hereinafter referred to as the "Grantor," having an office at 170 West End Avenue, New York, NY and ACP AMSTERDAM III, LLC hereinafter referred to as the "Grantee," having an office at c/o American Continental Properties, LLC., 460 Park Avenue, 11th floor, New York, NY 10022.

WHEREAS, the Grantor is the authorized agent of the Unit Owners, the fee owners of certain land located in the City and State of New York, Borough of Manhattan, designated as Block 1158, Lots 1401 through 1404 (for the professional units of the Condominium) and Lot 1405 (for the residential unit of the Condominium), f/k/a lot 30 on the Tax Map of the City of New York, hereinafter referred to as Parcel A and more particularly described by a metes and bounds description set forth in Schedule A annexed hereto and by this reference made a part hereof;

Deck: 1158

WHEREAS, the Grantee is the fee owner of certain land located in the City and State of New York, Borough of Manhattan, designated as Block 1158, Lots 133 and 134 on the Tax Map of the City of New York, hereinafter referred to as Parcel B and more particularly described by a metes and bounds description set forth in Schedule B annexed hereto and by this reference made a part hereof;

WHEREAS, there will be constructed a multistory building on Parcel B;

WHEREAS, the Department of Buildings may approve the Application upon the condition, inter alia, that Grantor create an easement for light and air for the benefit of the present and future owners of Parcel B in order to comply with the applicable provisions of Sections 27-732 and 27-746 of the 1968 Building Code or Sections BC 1203.4 and BC 1205.2 of the 2008 Building Code, as applicable.

NOW, THEREFORE, good and valuable consideration having been paid, the Grantor, as agent and on behalf of the Unit Owners and their respective legal representatives, successors and assigns hereby makes the following grant to Grantee, its legal representatives, successors, and assigns and to any future owner of Parcel B:

1. The right to unrestricted light and air over the portion of Parcel A that is more particularly described by the metes and bounds description set forth in Schedule C, annexed hereto and, by this reference, fully incorporated herein, such that any construction on such portion of Parcel A shall never infringe upon the light and air provided to Parcel B. The foregoing right is, however, subject to the terms set forth in Schedule C.

- 2. This easement agreement may not be modified, amended or terminated without the prior written consent of the Department of Buildings.
- 3. The covenants set forth herein shall run with the land and be binding upon and inure to the benefit of the parties hereto and their respective heirs, legal representatives, successors and assigns.
- 4. Failure to comply with the terms of this easement agreement may result in the revocation of a building permit or certificate of occupancy.
- 5. This easement agreement shall be recorded at the city register's (county clerk's) office against all affected parcels of land and the cross-reference number and title of the easement agreement shall be recorded on each temporary and permanent certificate of occupancy hereafter issued to buildings located on the affected parcels and in any deed for the conveyance thereof.

IN WITNESS WHEREOF, the parties have made and executed the foregoing easement agreement as of the date hereinabove written.

Grantor:

Board of Managers of The 170 West End Avenue Condominium

(on behalf/offall Unit Owners)

By:

Name

Title:

Grantee:

ACP AMSTERDAM III, LLC

By: ACP Amsterdam Development, L.L.C.

By: LTG West End Corp., (its Manager)

By:

Name:

Title:

8/21

#### Acknowledgment

STATE OF NEW YORK	)	
	) ss.:	
COUNTY OF NEW YORK	)	
evidence to be the indivi acknowledged to me that he	ally known to me or proved dual whose name is subscri she executed the same in her c	the undersigned personally appeared to me on the basis of satisfactory bed to the within instrument and apacity, and that by his/her signature shalf of which the individual acted,
	Morgare Notary Public	+ Ola
	<u>Acknowledgment</u>	MARGARET CHAN Notary Public, State of New York No. 01-CH6116828
STATE OF NEW YORK	)	Qualified in Queens County Commission Expires October 12,2014
	) ss.:	
COUNTY OF NEW YORK	)	

On the on the day of December, in the year 2014, before me, the undersigned personally appeared Barbara Baly, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

MARGIE LEE Notary Public State of New York
No. 31(+7552439
Qualific Louis County
Commission Expirits Nov. 27, 19

Hargie Lee
Notary Public State of Dewlork
No.01 LE5052439
Qualified in Kings County
Commission Expires Not 27, 2017



## **2CHEDNIE V**

PARCEL A



#### SCHEDULE A

#### PARCEL A

ALL that certain plot, piece or parcel of land, situate, lying and being in the Borough of Hanhattan, City, County and State of New York, bounded and described as follows:

BEGINNING at a point on the westerly side of Amsterdam Avenue, 100 feet wide, distant 220 feet 10 inches southerly from the corner formed by the intersection of the westerly side of Amsterdam Avenue with the southerly side of West 70th Street, 60 feet wide;

RUNWING THENCE southerly slong the westerly side of Amsterdam Avenue, 65 feet;

THENCE westerly at right angles to Amsterdam Avenue, 80 feet;

THENCE southerly perallel with Amsterdam Avenue, 50 feet;

THENCE westerly at right angles to the preceding course 20 feet to a point on a line 100 feet westerly from and parallel with Amsterdam Avenue;

THENCE southerly along said parallel line, 198 feet 4 inches;

TKENCE westerly at right angles to the preceding course, 364 feet 4 inches:

THENCE northerly parallel with Nest End Avenue, 39 feet 4 Inches:

THENCE westerly at right angles to West End Avenue 335 feet 8 inches to a point on the easterly side of West End Avenue;

THENCE northerly along the easterly side of West End Avenue, 15 feet;

THENCE easterly at right angles to West End Avenue, 335 feet 8 inches;

THENCE northerly parallel with West End Avenue 259 feet to a point on a line distance 200 feet 10 inches southerly from and parallel with the southerly side of West 70th Street, 80 feet wide;

THENCE easterly along said parallel line 309 feet 4 inches;

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THENCE northerly at right angles to the preceding course, 120 feet 5 inches to a point on a line 100 feet 5 inches southerly from and parallel with West 70th Street 60 feet wide;

THENCE easterly along said parallel with Amsterdam Avenue, 120 feet 5 inches;

THENCE easterly at right angles to Amsterdam Avenue, 100 feet to the point or place of BEGINNING.

#### **SCHEDULE B**

#### PARCEL B

#### Lot 133:

All that certain lot, piece or parcel of land, situate, lying and being in the borough of Manhattan, City, County and State of New York, bounded and described as follows:

BEGINNING at a point on the westerly side of Amsterdam Avenue, distant 100 feet 5 inches from the corner formed by the intersection of the westerly side of Amsterdam Avenue, and the southerly side of West 70<sup>th</sup> Street;

Running thence westerly parallel with West 70th Street, 100 feet;

Thence southerly parallel with Amsterdam Avenue, 50 feet;

Thence easterly parallel with West 70<sup>th</sup> Street, 100 feet to the westerly side of Amsterdam Avenue; and

Thence northerly along the westerly side of Amsterdam Avenue, 50 feet to the point or place of the BEGINNING.

#### Lot 134:

All that certain lot, piece or parcel of land, situate, lying and being in the borough of Manhattan, City, County and State of New York, bounded and described as follows:

BEGINNING at a point on the westerly side of Amsterdam Avenue, distant 150 feet 5 inches from the corner formed by the intersection of the westerly side of Amsterdam Avenue, and the southerly side of West 70<sup>th</sup> Street;

Running thence westerly parallel with West 70th Street, 100 feet;

Thence southerly parallel with Amsterdam Avenue, 70 feet 5 inches;

Thence easterly parallel with West 70<sup>th</sup> Street, 100 feet to the westerly side of Amsterdam Avenue; and

Thence northerly along the westerly side of Amsterdam Avenue, 70 feet 5 inches to the point or place of the BEGINNING.

#### SCHEDULE C

#### PORTION OF PARCEL A

All that portion of a certain lot, piece or parcel of land, situate and being in the Borough of Manhattan, City, County and State of New York, which lies above a horizontal plane, the elevation of which is twelve (12) feet above grade (78.46 feet above the North American Vertical Datum of 1988 (NAVD88), established by the National Geodetic Survey; the "Horizontal Plane"), and which is bounded and lies within the vertical planes described as follows:

BEGINNING at a point in the westerly line of Amsterdam Ave distant 712'-6" northerly from the corner formed by the intersection of the westerly line of Amsterdam Ave with the northerly line of West 66<sup>th</sup> Street:

Running thence northerly, along the westerly line of Amsterdam Avenue, 30'-0";

Thence westerly, parallel with the northerly line of West 66th Street, 100'-0";

Thence northerly, parallel with the westerly line of Amsterdam Avenue, 120'-5";

Thence westerly, parallel with the northerly line of West 66th Street, 30'-0";

Thence southerly, parallel with the westerly line of Amsterdam Avenue, 120'-5";

Thence easterly, parallel with the northerly line of West 66th Street, 30'-0";

Thence southerly, parallel with the westerly line of Amsterdam Avenue, 30'-0";

Thence easterly, parallel with the northerly line of West 66<sup>th</sup> Street, 100'-0"; to the point or place of BEGINNING.

No buildings or improvements shall be constructed or allowed to exist below the Horizontal Plane except roads, paths, parking areas or other surface only type improvements.



#### **CHAPTER 4**

#### VENTILATION

#### **SECTION MC 401 GENERAL**

401.1 Scope. This chapter shall govern the ventilation of spaces within a building intended to be occupied. Mechanical exhaust systems, including exhaust systems serving clothes dryers and cooking appliances; hazardous exhaust systems; dust, stock and refuse conveyor systems; subslab soil exhaust systems; smoke control systems, energy recovery ventilation systems and other systems specified in Section 502 shall comply with Chapter 5.

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NYC 401.2 Ventilation required. Every occupiable space shall be ventilated by natural means in accordance with Section 402 or by mechanical means in accordance with Section 403. NYC! Every habitable space shall be ventilated by natural means in accordance with Section 402, and, if required by Table 403.3, by mechanical means in accordance with Section 403.

401.3 When required. Ventilation shall be provided during the periods that the room or space is occupied.

401.4 Intake opening! location. Air intake openings shall comply with the following:

- 1. Intake openings shall be located a minimum of 10 feet (3048 mm) from lot lines or buildings on the same lot. For buildings on lots measuring less than 20 feet (6096 mm) in width, intake openings shall be located at the centerline between lot lines.‡ Where openings front on a street or public way, the distance shall be measured to the centerline of the street or public way.
- 2. Outdoor intakes for high-rise office buildings having occupied floors located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access serving spaces above the second story and serving spaces greater than 10,000 square feet (929 m<sup>2</sup>) of floor area shall be located at least 20 feet (6096 mm) above ground level, at least 30 feet (9144 mm) from exhaust outlets and other exhaust discharges, and at least 20 feet (6096 mm) from areas that may collect vehicular exhaust, such as off street loading bays.
- 3. Mechanical and gravity outdoor air intake openings shall be located not less than 10 feet (3048 mm) horizontally from any hazardous or noxious contaminant source, such as vents, exhausts (including but not limited to exhaust from dry cleaning establishments, spray booths, and cooling towers), streets, alleys, parking lots and loading docks, except as specified in Item 3 of Section 501.2.1.
- 4. Where the requirements of Item 3 above cannot be achieved, intake openings shall be located not less than

3 feet (914 mm) below contaminant sources where such sources are located within 10 feet (3048 mm) of the anenine.

5. Intake openings in Group I occupancies shall comply with ANSI/ASHRAE/ASHE 170, as required.

6. Intake openings on structures in flood hazard areas shall comply with Appendix G of the New York Ciry Budding Code.

Exception: Group R-3 occupancies are not required to comply with Section 401.4.‡

401.4.1‡ Required dampers in intake openings. An outdoor air make opening with gross area of more than 144 square inches (0,0929 m²) shall be provided with fire dampers and smoke dampers, or combined fire and smoke dampers when such opening is located as follows:

- 1. Less than 30 feet (9144 mm) above grade.
- 2. Less than 30 (ee: (9144 mm) in any direction from any opening in another building.
- Less than 15 feet (4572 mm) from a lot line.
- 4. Less than 50 feet (15/240 mm) above and less than 50 feet (15 240 mm) in any direction from a roof constructed of combustible material or a building in which the exterior walls are constructed wholly or partly of wood.
- 5. Where fire dampers are required by Section 607.5.6. NYC NYC

#### Exceptions:

- 1. Smoke dampers shall not be required for outdoor air intake openings installed in any construction required to have a fire-resistance rating that is less than 2 hours.
- 2. Smoke dampers shall not be required for outdoor air intake openings of systems greater than 15,000 efm (7.1 m<sup>3</sup>/s) which are provided with smoke dampers in accordance with Chapter 6 of this code and arranged so as to not introduce smoke into the building or space in which the equipment is located.

401.5 Intake opening protection. Air intake openings that | terminate outdoors shall be protected with corrosion-resistant screens, louvers or grilles. Openings in louvers, grilles and screens shall be sized in accordance with Table 401.5,‡ and shall be protected against local weather conditions. Outdoor air intake openings located in exterior walls shall meet I the provisions for exterior wall opening protectives in accordance with the New York City Building Code,

NYC



where:

System population: The total number of occupants in the area served by the system. For design purposes. P, shall be the maximum number of occupants expected to be concurrently in all zones served by the sys-

403.3.2.3.4 Outdoor air intake flow rate. The outdoor air intake flow rate (V) shall be determined in accordance with Equation 4-8.

$$V_{\rm sp} = V_{\rm sp} / E_{\rm c} \qquad (Equation 4-8)$$

403.4 Short-term conditions. If it is known that peak occupancy will be of short duration and/or ventilation will be varied or interrupted for a short period of time, the design may be based on the average conditions over a time period, T. determined by Equation 4-9.

$$T = 3v/V_{pr}$$

NYC

NYC NYC

NYC

(Equation 4-9) (US)

 $T = 50 \text{m/V}_{bz}$ 

(Equation 4-9) (SI)

where:

T = average time period, minutes

= the volume of the zone of which averaging is being applied, cubic feet

 $V_{h_0}$  = the breathing zone outdoor airflow calculated using Equation 4-1 and design valve of the zone population  $P_{z}$ , of m

Acceptable design adjustments based on this optional provision include the following:

- 1. Zone with fluctuating occupancy: the zone population (P) may be averaged over time, T.
- 2. Zone with intermittent interruption of supply air: the average outdoor airflow supplied to breathing zone over time, T. shall be no less than the breathing zone outdoor airflow  $(V_{nz})$  calculated using Equation 4-1.
- 3. A system with intermittent closure of outdoor air intake: the average outdoor air intake over time.
- 4. T shall be no less than the minimum outdoor air intake  $(V_{ai})$  calculated using Equation \$\frac{1}{2}\$ 4-3, 4-4 or 4-8, as appropriate.
- 403.5 Exhaust ventilation. Exhaust airflow rate shall be provided in accordance with the requirements in Table 403.3. Exhaust makeup air shall be permitted to be any combination of outdoor air, recirculated air and transfer air, except as limited in accordance with Section 403.2
- 403.6 System operation. The minimum flow rate of outdoor air that the ventilation system must be capable of supplying during its operation shall be permitted to be based on the rate per person indicated in Table 403.3 and the actual number of occupants present.
- 403.7 Variable air volume system control. Variable air volome air distribution systems, other than those designed to supply only 100-percent outdoor air, shall be provided with controls to regulate the flow of outdoor air. Such control system shall be designed to maintain the flow rate of outdoor air

at a rate of not less than that required by Section 403.3 over the entire range of supply air operating rates.

403.8 Balancing. The ventilation air distributing system shall layou be provided with means to adjust the system to achieve at least the minimum ventilation airflow rate as required by Sections 403.3 and 403.4. Ventilation systems shall be balanced by an approved method. Such balancing shall verify that the ventilation system is capable of supplying and exhausting the airflow rates required by Sections 403.3 and 403.4.

#### SECTION MC 404 **ENCLOSED PARKING GARAGES**

404.1 Enclosed parking garages. Mechanical ventilation systems for enclosed parking garages shall be permitted to operate intermittently where the system is arranged to operare automatically upon detection of a concentration of carbon monoxide of 25 parts per million (ppm) by approved automatic detection devices.

404.2 Minimum ventilation. Automatic operation of the system shall not reduce the ventilation pirflow rate below [ 0.05 cfm per square foot (0.00025 m/s · m<sup>2</sup>) of the floor area and the system shall be capable of producing a ventilation airflow rate of 0.75 cfm per square foot (0.0038 m/s • m2) of 1 floor area.

404.3 Occupied spaces accessory to public garages. Connecting offices, waiting rooms, ticket booths and similar uses that are accessory to a public garage shall be maintained at a positive pressure and shall be provided with ventilation in accordance with Section 403.3.

#### **SECTION MC 405** SYSTEMS CONTROL

405.1 General. Mechanical ventilation systems shall be provided with manual or automatic controls that will operate such systems whenever the spaces are occupied. Air-conditioning systems that supply required ventilation air shall be provided with controls designed to automatically maintain the required outdoor air supply rate during occupancy.

405.2 Manual control. Each air distribution system shall be provided with not less than one manual control to stop the NYC operation of the supply, return, and exhaust fans(s) in an emergency. The manual control shall be provided at an NYC approved location. A disconnect switch shall not be consid- [ ered a manual control.

405.2.1 Office buildings. Any building where the main use or dominant occupancy is classified in Occupancy Group B having occupied floors located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access, where a system serves a floor or floors other than the floor on which the equipment is located, shall be provided with the following controls, in addition to the controls required by this chapter:

1. Manual controls for operating individually each air supply and each exhaust or return fan in the system located as follows:

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## with Appendix G of the New York City Building INVC

#### **CHAPTER 5**

#### **EXHAUST SYSTEMS**

#### SECTION MC 501 GENERAL

501.1 Scope. This chapter shall govern the design, construction and installation of mechanical exhaust systems, including exhaust systems serving clothes dryers and cooking appliances; hazardous exhaust systems; dust, stock and refuse conveyor systems; subslab soil exhaust systems; smoke control systems; energy recovery ventilation systems; and other systems specified in Section 502.‡

S01.2 Exhaust discharge. The air removed by every mechanical exhaust system shall be discharged outdoors at a point where it will not cause a nuisance and the air shaft will be located not less than the distances specified in Section 501.2.1. The air shall be discharged to a location from which it cannot again be readily drawn in by a ventilating system. Air shall not be exhausted into an attic or crawl space.

#### Exceptions:

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- Whole-house ventilation-type attic fans shall be permitted to discharge into the attic space of dwelling units having private attics.
- 2. Commercial cooking recirculating systems.

501.2.1 Location of exhaust outlets. The termination point of exhaust outlets and ducts discharging to the outdoors shall be located within the following minimum distances:

- 1. For ducts conveying noxious, toxic, explosive or flammable vapors, fumes or dusts (including but not limited to exhaust form dry cleaning establishments and spray booths): 30 feet (9144 mm) from property lines; 10 feet (3048 mm) from operable openings into buildings; 6 feet (1829 mm) from exterior walls and roofs; 30 feet (9144 mm) from combustible walls and operable openings into buildings which are in the direction of the exhaust discharge; 10 feet (3048 mm) above adjoining grade. Additional requirements may apply to Hazardous Exhaust Systems; see Section 510.
- For other product-conveying outlets: 10 feet (3048 mm) from the property lines; 3 feet (914 mm) from exterior walls and roofs: 10 feet (3048 mm) from operable openings into buildings; 10 feet (3048 mm) above adjoining grade: 10 feet from any exterior fire escape, stair, or balcony.
- For all environmental air exhaust outlets: 3 feet (914 mm) from property lines: 3 feet (914 mm) from operable openings into buildings for all occupancies other than Group U, and 10 feet (3048 mm) from mechanical air intakes. Such exhaust outlets shall not be considered hazardous or noxious.
- Exhaust outlets and openings serving structures in flood hazard areas shall be installed in accordance

5. For specific systems see the following sections:

- 5.1. Clothes dryer exhaust, Section 504.4.
  - 5.2. Kitchen hoods and other kitchen exhaust equipment, Sections 506.3.12, 506.4 and 506.5.
  - 5.3. Dust stock and refuse conveying systems, Section 511.
  - 5.4. Subslab soil exhaust systems, Section 512.4.
  - 5.5. Smuke control systems, Section 513 10.3
  - 5.6. Refrigerant discharge, Section 1105.7.
  - Machinery room discharge, Section 1105.6.1.
- 6. In Occupancy Groups R-2 and R-3 each dwelling unit may be individually exhausted directly to the outdoors with a dedicated, exhaust fan and shall comply with the following:
  - 6.1. The exhaust system for the kitchen and the toilet/baths may be combined to the inlet of a continuously operated single fan, provided such exhaust system serves only one dwelling unit.
  - 6.2. The dedicated exhaust from each dwelling unit shall be directed away from any window serving the same dwelling unit from which the exhaust is taken, and in addition, such exhaust opening shall terminate at least:
    - 6.2.1. Two feet (610 mm) from any operational window or door serving the same dwelling unit.
    - 6.2.2. Three feet (1219 mm) from any operational window or door serving an adjoining dwelling unit.
    - 6.2.3. Three feet (1219 mm) from any operational window or door serving another occupancy group in the same building.
    - 6.2.4. Ten feet (3048 rnm) from any outdoor air intake opening.
    - 6 2.5. Ten feet (3048 mm) above the public sidewalk adjoining the same building.
    - 6.2.6. All other minimum distances prescribed in Items‡ 1 through 5 of Section 501.2.1 shall be satisfied.‡

501.2.1.1 Exhaust discharge. Exhaust air shall not be directed onto walkways.‡

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3. The chimney shall be filled with a thick penetrating smoke produced by one or more smoke machines, or smoke bombs, or other equivalent method. As the smoke appears at the stack opening on the roof, such opening shall be tightly closed and a pressure equivalent to 1/2-inch (13 mm) column of water measured at the base of the stack, shall be applied. The test shall be applied for a length of time sufficient to permit the inspection of the chimney.

New York City Air Pollution Control Code.

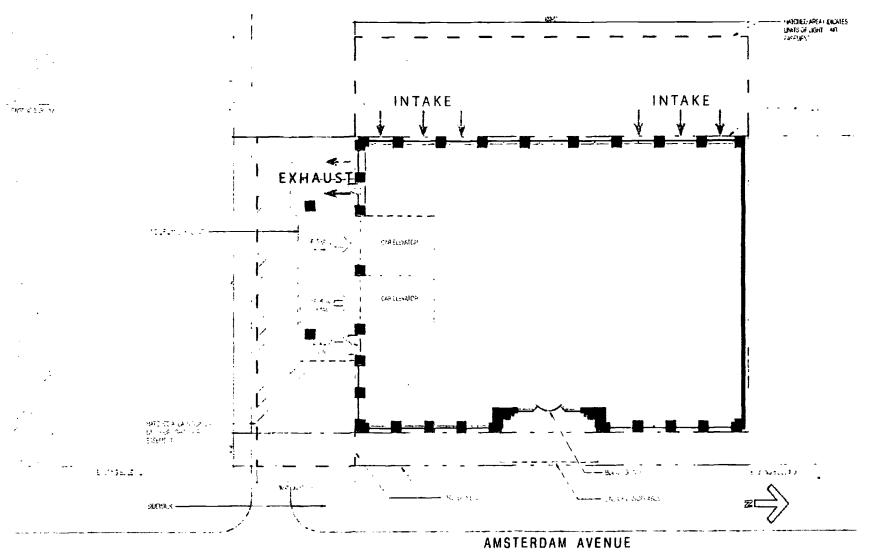
811.3 All other engine and turbine discharge terminatiun requirements. The location of the discharge outlet from all other engines and turbines shall comply with the requirements of Section 801,20.2 or Section 801,20.3 based on the

ation of the other equipment so that it is in violation of the NYC

# temperature of the guses entering the exhaust pipe.

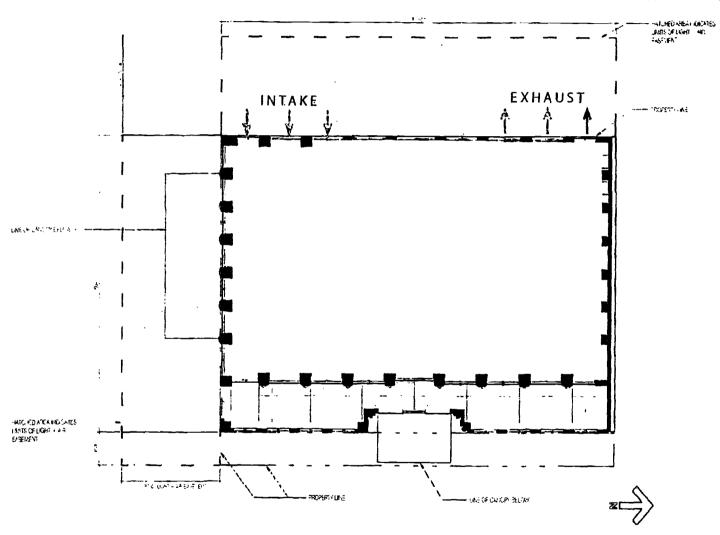
#### **SECTION MC 811 EXHAUST GASES FROM INTERNAL COMBUSTION ENGINES AND TURBINES**

- 811.1 Exhaust pipe construction. The exhaust pipe from internal combustion engines shall be constructed in accor-NYC dance with NFPA 211, NFPA 37, and based on the temperature of the gases entering the exhaust pipe, and in accordance with the following:
  - 1. The exhaust pipe, if factory fabricated, shall be installed in accordance with its listing and manufacturer's instructions.
  - 2. The exhaust pipe, if field fabricated, shall be constructed of at least V<sub>16</sub>-inch (5 mm) steel, or of other equivalent metal of similar strength and resistance to the temperature and corrosive action of the exhaust gases. No lining shall be required.
  - 3. Where the exhaust pipe runs inside a building, it shall be insulated with insulation adequate for the temperature of the pipe, so that the surface temperature shall be not more than 200°F (93°C).
  - 4. Where the exhaust pipe runs inside a building outside of the room containing the equipment, it shall be enclosed in fire-rated construction with a fire rating equal to the fire rating of the construction of the room.
  - 5. All joints shall he constructed so as to be gas tight under all operating conditions and tested in accordance with Section 810.
  - 811.2 Emergency and stundby generator discharge opening termination requirements. The location of discharge openings for emergency and standby internal combustion engines shall comply with the requirements of NFPA 37 so that the flue gases are not directed to jeopardize the health or safety of people, overheat combustible structures, nor enter building openings in the vicinity of the outlet, nor shall the location of such openings cause the condensate leaving the outlet to come into comact with people.
    - 811.2.1 Interference. No discharge opening shall be located and constructed so as to interfere with the proper functioning of other openings in the same building or adjoining buildings, to interfere unreasonably with the occupants of the same building or adjoining buildings, or with the general public, or to create a fire or health haz-
    - 811.2.2 Chimneys. The exhaust pipe may be connected to a chimney used for other equipment, provided that the operation of the engine does not adversely affect the oper-



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